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| 09/750,903 | 12/28/2000 | Paul Kirkby | 476-1981 | 2728 |

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EXAMINER

NGUYEN, HAI V

ART UNIT PAPER NUMBER

2142

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 04/06/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/750,903

Applicant(s)

KIRKBY ET AL.

Examiner

Hai V. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 16 January 2007.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 21-36 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 21-36 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 07 June 2001 is/are: a) accepted or b) objected to by the Examiner.
 - Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 - Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

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DETAILED ACTION

1. This Office Action is in response to the communication received on 16 January 2007.
2. Claims 1-20 were cancelled.
3. Claims 21-36 are presented for examination.

Response to Arguments

4. Applicant's arguments, see Applicant's remarks on pages 7-11 filed 16 January 2007, with respect to the rejection(s) of claim(s) 21-36 under 35 USC 103(a) rejection(s) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kadengal US patent # 6,928,053 B1.

Drawings

5. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings are hand-written, fuzzy to read. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 21, 29, 35 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Regarding claims 21, 29, 35 and 36, the word "means" is preceded by the word(s) "of controlling admission of the traffic flow to the network resource" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 21-36 are rejected under 35 U.S.C. 102(e) as being anticipated by

Kadengal US patent # 6,928,053 B1.

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The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

11. As to claim 21, Kadengal discloses a method of controlling admission of a traffic flow to a communications network, the method comprising the steps of: sampling an aggregated traffic flow (*col. 2, lines 48-49; col. 4, line 20*) on a network resource (*an ingress router*) to which the traffic flow is to be admitted to obtain a mean bandwidth (*a set point value*) measurement and a bandwidth variance (*a difference value*) measurement of said aggregated traffic flow (*Figs. 3-4, Abstract, col. 2, lines 41-67; col. 3, lines 1-27; col. 5, line 1 – col. 7, line 4*); determining from said mean bandwidth and variance measurements a price for bandwidth (*a resource price*) and a separate price (*WtP, Abstract, col. 1, line 38; col. 2, line 42; col. 3, line 20*) for variance (*Figs. 3-4, Abstract, col. 2, lines 41-67; col. 3, lines 1-27; col. 5, line 1 – col. 7, line 4; col. 8, line 21 – col.11, line 34*); sampling the traffic flow to be admitted to the network resource to measure its mean bandwidth and variance (*Figs. 3-4, Abstract, col. 2, lines 41-67; col. 3, lines 1-27; col. 5, line 1 – col. 7, line 4; col. 8, line 21 – col.11, line 34*); and

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applying to said traffic flow the separate prices for bandwidth and variance as a means (*network ingress controller, col. 2, lines 39-67*) of controlling admission of the traffic flow to the network resource (*Figs. 3-4, Abstract, col. 2, lines 41-67; col. 3, lines 1-27; col. 5, line 1 – col. 7, line 4; col. 8, line 21 – col.11, line 54*).

12. As to claim 22, Kadengal discloses, wherein the price for bandwidth is determined as a price for unit bandwidth and the price for variance is determined as a price for unit variance (*Figs. 3-8, Abstract, col. 2, lines 41-67; col. 3, lines 1-27; col. 5, line 1 – col. 7, line 4; col. 8, line 21 – col.11, line 54*).

13. As to claim 23, Kadengal discloses, wherein a total price for admission of the traffic flow to the network resource is provided to an admission controller of said traffic flow, said total price comprising the sum of the following products: i) the measured mean bandwidth of the traffic flow times the price per unit bandwidth for using the network resource; and ii) the variance of the traffic flow times the price per unit variance for using the network resource (*Figs. 3-8, Abstract, col. 2, lines 41-67; col. 3, lines 1-27; col. 5, line 1 – col. 7, line 4; col. 8, line 21 – col.11, line 54*).

14. As to claim 24, Kadengal discloses, wherein an admission controller associated with the traffic flow regulates at least one of the mean bandwidth and variance of said traffic flow (*Figs. 3-8, Abstract, col. 2, lines 41-67; col. 3, lines 1-27; col. 5, line 1 – col. 7, line 4; col. 8, line 21 – col.11, line 54*).

15. As to claim 25, Kadengal discloses, wherein said admission controller comprises an ingress controller in an edge node of the communications network (*Figs. 3-8,*

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Abstract, col. 2, lines 41-67; col. 3, lines 1-27; col. 5, line 1 – col. 7, line 4; col. 8, line 21 – col.11, line 54).

16. As to claim 26, Kadengal discloses wherein respective maximum control limits are defined for both the mean bandwidth and bandwidth variance components of the aggregated traffic flow on the network resource, and wherein at least one of said price for bandwidth and price for variance is increased as any of the mean bandwidth and variance measurements of said aggregated traffic flow approaches its respective limit (*Figs. 3-8, Abstract, col. 2, lines 41-67; col. 3, lines 1-27; col. 5, line 1 – col. 7, line 4; col. 8, line 21 – col.11, line 54).*

17. As to claim 27, Kadengal discloses, wherein the determination of the bandwidth price is a function of the difference between the measured mean bandwidth of the aggregated traffic flow and the mean bandwidth control limit, and of the first and second derivatives against time of said function (*Figs. 3-8, Abstract, col. 2, lines 41-67; col. 3, lines 1-27; col. 5, line 1 – col. 7, line 4; col. 8, line 21 – col.11, line 54).*

18. As to claim 28, Kadengal discloses, wherein the determination of the variance price is a function of the difference between the control limit and the sum of the measured variance of the aggregated traffic flow and a standard deviation corresponding to said variance, and of the first and second derivatives against time of said standard deviation (*Figs. 3-8, Abstract, col. 2, lines 41-67; col. 3, lines 1-27; col. 5, line 1 – col. 7, line 4; col. 8, line 21 – col.11, line 54).*

19. Claim 29 corresponds the apparatus plus function claim of claim 21; therefore, it is rejected under the same rationale as in claim 21.

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20. Claims 30-34 introduce identical limitations of claims 22-23, 26-28; therefore they are rejected under the same rationale as in claims 22-23, 26-28.

21. Claim 35 corresponds the apparatus claim of claim 21; therefore, it is rejected under the same rationale as in claim 21.

22. Claim 36 corresponds the computer readable medium claim of claim 21; therefore, it is rejected under the same rationale as in claim 21.

23. Further references of interest are cited on Form PTO-892, which is an attachment to this action.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai V. Nguyen whose telephone number is 571-272-3901. The examiner can normally be reached on 6:00-3:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hai V. Nguyen
Examiner
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ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER